

JUN 14 2005

Subj: GUIDANCE ON ASSESSING THE SUITABILITY OF A WATERWAY FOR  
LIQUIFIED NATURAL GAS (LNG) MARINE TRAFFIC

- Ref: (a) Interagency Agreement among the Federal Energy Regulatory Commission, U.S. Coast Guard, and Research & Special Programs Administration for the Safety and Security Review of Waterfront Import/Export Liquefied Natural Gas Facilities, signed Feb 2004
- (b) National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1D (series)
- (c) Environmental Considerations for Decision Making, COMDTPUB P16475.6
- (d) Navigation and Vessel Inspection Circular No. 10-04, Guidelines for Handling of Sensitive Security Information (SSI), COMDTPUB P16700.4
- (e) Sandia National Laboratories Report SAND2004-6258, "Guidance on Risk Analysis and Safety Implications of a Large Liquefied Natural Gas (LNG) Spill Over Water," dated December 2004
- (f) Liquefied Natural Gas and Liquefied Petroleum Gas – Views and Practices, Policy and Safety, COMDTINST M16616.4 (old CG-478)
- (g) 33 CFR 127: "*Waterfront Facilities Handling Liquefied Natural Gas and Liquefied Hazardous Gas*"
- (h) Navigation and Vessel Inspection Circular No. 9-02, Ch-1, Guidelines for Development of Area Maritime Security Committees and Area Maritime Security Plans for U.S. Ports, COMDTPUB P16700.1
- (i) Risk-Based Decision-Making, COMDTINST M16010.3 (series), and Risk-Based Decision-Making Guidelines, 3<sup>rd</sup> edition ( <http://www.uscg.mil/hq/g-m/risk/e-guidelines/RBDMGuide.htm> )

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1. PURPOSE.

- a. The purpose of this Circular is to provide guidance to an applicant seeking a permit to build and operate a shore-side LNG terminal on the timing and scope of the process that is necessary to ensure that full consideration is given to safety and security of the port, the facility, and the vessels transporting the LNG. This guidance will assist the Coast Guard to obtain all information needed to assess the proposed LNG marine operations and fulfill its commitment to the Federal Energy Regulatory Commission (FERC) to provide input to their Environmental Impact Statement (EIS), as outlined in reference (a). FERC will include the Coast Guard's assessment in its EIS to fulfill its environmental review responsibilities under the National Environmental Policy Act (NEPA). Additionally, this Circular provides guidance on the Coast Guard's regulatory role in issuing a Letter of Recommendation (LOR), and the Coast Guard's compliance responsibilities under NEPA which are triggered by the Coast Guard action of issuing an LOR. Finally, it provides public affairs guidance and clarifies the Coast Guard's position on LNG safety.
- b. This Circular was developed to meet an urgent need for a national policy, and may be updated as more information comes to light regarding risks and risk management measures for the marine transportation of LNG.
- c. This Circular does not address LNG Deepwater Port (DWP) facilities licensed under the DWP Act of 1974 (33 U.S.C. § 1501, et seq.), as amended.

2. ACTION.

- a. Applicants planning to build a new shore-side LNG terminal, or reactivate or modify an existing one, are encouraged to refer to this Circular for process and procedural guidance.
- b. Coast Guard Captains of the Port (COTPs)/Federal Maritime Security Coordinators (FMSCs) are encouraged to use this Circular to provide guidance to applicants on how to conduct a Waterway Suitability Assessment (WSA) for the proposed LNG marine traffic, and for guidance on how to review and validate this assessment. This Circular also provides guidance on the Coast Guard's role as a cooperating agency with FERC in preparing their EIS, and guidance on processing a Letter of Intent (LOI) and issuing a LOR.
- c. COTPs/FMSCs are further encouraged to consult with the appropriate Coast Guard Civil Engineering Unit (CEU) or Maintenance and Logistic Command (MLC) as soon as they receive a LOI and start the LOR process, to ensure that the Coast Guard's NEPA responsibilities, described in references (b) and (c), are fulfilled. As discussed in this Circular, upon FERC's issuance of the Final-EIS, and completion of the CEU's or MLC's NEPA compliance review and environmental approval of those portions of FERC's Final-EIS which relate to Coast Guard actions, a LOR may be issued. The Coast Guard, as a cooperating agency, will adopt the applicable portions of FERC's EIS to satisfy its NEPA compliance responsibilities for the LOR process, and will not need to prepare a separate EIS.

- d. This Circular will be distributed, **without enclosure (3)**, by electronic means only. It is available on the World Wide Web at [www.uscg.mil/hq/g-m/nvic/index00.htm](http://www.uscg.mil/hq/g-m/nvic/index00.htm) (**see the following paragraph for directions to receive enclosure (3)**).
  - e. Enclosure (3) to this Circular contains Sensitive Security Information (SSI); therefore, it is not subject to public disclosure. If disclosed, the SSI could be used to subvert or exploit the security programs of vessels, facilities, or ports. SSI material requires appropriate handling in accordance with 49 CFR 1520 and reference (d). **Members of the maritime industry, members of federal, state, or local government agencies, and other parties that can demonstrate a need to know may submit a request for enclosure (3) to the cognizant COTP/FMSC or Commandant (G-MPS).**
3. DIRECTIVES AFFECTED. None
4. BACKGROUND.
- a. LNG History: In the late 1800s it was discovered that natural gas could be converted to a liquid by cooling it to about  $-260^{\circ}\text{F}$ . By the 1950s there was enough commercial demand for natural gas in the U. S. for the country to seek supply sources from overseas. Since LNG takes up 600 times less space than in its gaseous form, the most economical way to import natural gas from overseas is to convert it to LNG and transport it via LNG tankers. The first LNG tanker went into operation in 1959, and all LNG tankers have been built to rigorous international standards and have had an excellent safety record in over 40 years of service.
  - b. LNG Safety: A number of studies and reports have been published about the safety of LNG tankers, with varying conclusions about the likelihood and consequences of a large LNG marine spill. In order to provide the federal government and general public with a clearer picture of the risks associated with LNG tankers, the Department of Energy (DOE) tasked Sandia National Laboratories to perform an independent review of these studies and reports and then develop their own conclusions about the risks associated with LNG tankers. They were also tasked with developing guidance on a risk-based approach to assess and quantify potential threats to a LNG ship, to review the potential hazards and consequences of a large spill from a LNG ship, and review risk management strategies that could be implemented to reduce both the potential for, and the risks of, a LNG spill over water. The Sandia Labs Report, reference (e), provides the foundation for the Coast Guard's position on LNG safety and provides a basis for evaluating the risks associated with LNG marine traffic. Additional information on LNG safety can be found in reference (f).
  - c. Role of FERC and Coast Guard:
    - (1) Under authority delegated by the DOE, FERC is responsible for authorizing the siting and construction of onshore LNG facilities under Section 3 of the Natural Gas Act (15 U.S.C. § 717, et seq.). This includes LNG terminals that are built beyond the

shoreline but are located within state waters and, therefore, do not fall under the jurisdiction of the Deepwater Port Act, as amended (33 U.S.C. § 1501, et seq.). Once FERC receives an application to build a new LNG terminal, or reactivate or modify an existing one, in accordance with NEPA they are required to complete an environmental review which is usually documented in the form of an EIS.

- (2) In February 2004, the Coast Guard, FERC and the U.S. Department of Transportation entered into an Interagency Agreement, reference (a). Under this agreement, the agencies work together to ensure that both land and marine safety and security issues are addressed in a coordinated and comprehensive manner. In particular, the Coast Guard acts as a cooperating agency to FERC for the EIS, serving as a subject matter expert for maritime safety and security. The agencies agreed that maritime safety and security related information will be addressed by FERC in the EIS process required under NEPA, and disclosed to the public to the extent permitted by law.
- (3) In addition to acting as a cooperating agency to FERC for the EIS, the Coast Guard is required by regulation to issue an LOR. The Coast Guard's LOR process is described in reference (g), which was developed under the authority of the Port and Waterways Safety Act of 1972 (33 U.S.C. § 1221, et. seq.). This regulation describes a two step process: First, the applicant submits a LOI to the local COTP in whose jurisdiction the proposed facility would be located. Second, the COTP issues a LOR to the applicant of the proposed facility, and to state and local authorities having jurisdiction, regarding the suitability of the waterway for LNG marine traffic. The LOI contains a variety of information about the project, and can be presented to the local COTP as few as 60 days prior to construction of the LNG facility. However, 60 days clearly does not provide enough time for the COTP to evaluate the suitability of the waterway for LNG marine traffic and so, as discussed in section 5.a of this Circular, applicants are encouraged to follow the timeline provided as enclosure (1) to avoid delays in the application process.
- (4) The regulations outlining the LOI and LOR process date from 1988, and clearly did not contemplate the maritime security challenges we face today. While the current LOR regulations contain specific requirements to address navigational safety issues, it is clear that in the post-9/11 world, security considerations should also be evaluated in order to make an adequate assessment of the facility siting and the suitability of the waterway for LNG marine traffic. A review of security considerations is also necessary to fulfill the agency's NEPA compliance responsibilities in the EIS process.
- (5) The EIS process allows for consideration of activities that are "connected" to the principal matter under environmental review, i.e., the siting of the proposed terminal. In the case of shore-side LNG terminals, relevant connected activities include matters related to LNG vessel transits to and from the LNG terminal. Therefore, FERC's EIS process takes into account such factors as a cargo release from a LNG tanker and its consequences to public safety and health, and the impact to adjacent critical infrastructure and key assets. As a cooperating agency to FERC and as provided for

in the referenced Interagency Agreement, the Coast Guard assists FERC by reviewing the information provided by the applicant and providing input to the EIS regarding the maritime transportation aspects as well as the full range of risk management strategies being considered to responsibly manage safety & security aspects of LNG maritime transportation.

- d. NEPA Compliance: The Coast Guard's issuance of a LOR is a federal action which requires compliance with NEPA, just as the FERC's authorization for construction and operation of a LNG facility requires compliance with NEPA. As a cooperating federal agency, and under the referenced Interagency Agreement, the Coast Guard may adopt FERC's EIS to satisfy its own NEPA responsibilities. However, all required Coast Guard NEPA analysis and documentation must be complete prior to the issuance of the final LOR. Therefore, to avoid unnecessary delay in the issuance of a LOR, early coordination between the COTP/FMSC, FERC, and the environmental staff at the appropriate Coast Guard CEU or MLC is necessary to ensure that all Coast Guard actions pertaining to the issuance of the LOR are addressed in the EIS. The Coast Guard's analysis of FERC's EIS will be limited to assuring ourselves that our comments have been addressed in the EIS and that the EIS covers the Coast Guard's specific action(s). As discussed in paragraph 5.b.(18), the CEU or MLC environmental staff must sign a Record of Decision (ROD) as official environmental reviewer for the Coast Guard.

## 5. DISCUSSION.

- a. Role of LNG Facility Applicant: FERC is advising applicants, at the time they either begin the "Pre-Filing"<sup>1</sup> process or formally submit their application, whichever comes first, to do the following. First, submit an LOI and Preliminary WSA, as discussed in paragraph 5.a.(2), to the cognizant Coast Guard COTP/FMSC. Secondly, complete a Follow-on WSA, as discussed in paragraph 5.a.(3), and provide it to the COTP/FMSC for review and validation. The following guidance is provided for completing a WSA.
  - (1) If the Preliminary WSA or Follow-on WSA contains information that is considered SSI, these documents will require appropriate marking and handling in accordance with 49 CFR 1520 and reference (d).
  - (2) The Preliminary WSA is an initial document which should provide an outline of the major impacts of the LNG operations on the port, and should address the major topics listed in enclosure (2). The Preliminary WSA is necessary to start the scoping process for evaluating the suitability of the waterway for LNG marine traffic.
  - (3) The Follow-on WSA should clearly identify credible security threats and safety hazards to LNG marine transportation in that port, and identify appropriate risk management measures. A major goal of the Follow-on WSA is to identify what

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<sup>1</sup> FERC's "NEPA Pre-Filing Process" encourages industry to engage in early project development involvement with the public as well as federal agencies, as contemplated by the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) regulations.

resources (federal, state, local and private sector) will be needed to carry out the risk management measures identified in the WSA, what resources are currently available at the port, and what steps the applicant can take to address the resource gap and provide a safe and secure environment for the LNG marine traffic. The Follow-on WSA should address all the components listed in enclosure (2). Reference (h) also contains useful information on conducting port security assessments.

- (4) Applicants are encouraged to begin coordinating with the cognizant COTP/FMSC early in the application process to obtain information from the Area Maritime Security Plan (AMSP), including Port Security - Risk Assessment Tool (PS-RAT) data, and maritime critical infrastructure and key assets list, which may be useful in conducting the WSA. This information may be provided in accordance with the Coast Guard's guidelines for handling SSI.
- (5) In addition, the Coast Guard has developed a Risk Management Quick-Reference Tool, enclosure (3), which is a SSI document that will be distributed as discussed in paragraph 2.e. It includes measures to be considered for addressing "conventional" waterways management and navigational safety issues such as groundings, allisions and collisions, as well as measures to be considered for deterring terrorist attacks. The intent of this quick-reference tool is to ensure the accidental and intentional release scenarios identified in the Sandia Labs Report are considered when preparing and reviewing a WSA. **However, this tool is not intended to force the use of risk management strategies that may not be effective for a given port, or prevent the use of other risk management strategies that may be more effective.** It is important to note that some of these risk management strategies are aimed at reducing the vulnerability of LNG tankers to damage, while others are aimed at reducing the consequences if damage does occur. This tool is not intended to take the place of a comprehensive risk assessment, but should help to set the direction and establish the scope of such an assessment.
- (6) Enclosure (4) is a WSA review checklist that applicants may find useful to ensure that all appropriate elements necessary for the Coast Guard to review and validate the Follow-on WSA, and prepare a report on the suitability of the waterway for LNG marine traffic, have been addressed.
- (7) Applicants may use either "in-house" personnel or third-party contractors to conduct the WSA. The skill sets and subject matter expertise described in 33 CFR 103.410, which contains the qualifications required for persons carrying out an Area Maritime Security (AMS) assessment, are considered appropriate for persons performing a WSA under this Circular. Additionally, persons performing the WSA are encouraged to have comparable navigational safety expertise.
- (8) Applicants are advised that it may take the COTPs/FMSCs up to 90 days to adequately review and validate the Follow-on WSA. FERC is advising applicants to submit the Follow-on WSA at the time they formally file their application with

FERC. This should allow the COTP/FMSC enough time to provide information to FERC on the various risk management measures and strategies being considered, as well as resource requirements to implement those strategies, so that this information can be included in the Draft-EIS. Accordingly, applicants are encouraged to adhere to the recommended timelines provided in enclosure (1) to prevent delays in the processing of their application.

- (9) Because WSAs are typically submitted years before the facility goes into operation, it's quite possible the port's overall security picture may change significantly. New port activities may commence, additional infrastructure may be added, and/or population density may change. Also, plans for the facility itself may change, such as the redesign of piers or facility infrastructure, changes in the frequency or size of LNG carriers anticipated to call at the facility, etc. Therefore, until the facility does go into operation, FERC may direct applicants to annually review and update the WSA to reflect changing conditions, and provide the updated WSA to the cognizant COTP/FMSC for review and validation. Once a LNG terminal is in operation, security considerations will be reviewed in accordance with the requirements for the Facility Security Plan, per 33 CFR 105, and Area Maritime Security Plan, per 33 CFR 103.
- b. Role of the Coast Guard COTP/FMSC: The following procedures are provided to assist the COTP/FMSC in assessing the suitability of a waterway for LNG marine traffic, providing input to FERC's EIS, and issuing a LOR.

Process Initiation

- (1) Establish dialog with FERC as early as possible to identify and establish communications with their Project Manager for the proposed LNG terminal(s).
- (2) Establish dialog with the applicant as early as possible to ensure they are familiar with the LOI and WSA process, and conduct follow-up meetings as necessary. Enclosure (3) and information from the AMSP, including PS-RAT data and maritime critical infrastructure and key assets list, may be made available to the applicant (or involved third-party contractors) to assist them in developing the WSA, in accordance with the guidelines for handling SSI.
- (3) Upon receipt of a LOI and Preliminary WSA from the applicant, the COTP/FMSC should review these documents to ensure they are complete.
- (4) The COTP/FMSC should notify the appropriate District staff that they have received a LOI and should draft a Press Release (see enclosure (5)). Prior to releasing the Press Release, provide a draft copy to the appropriate District Public Affairs office for consultation and guidance. Questions beyond the scope of the Coast Guard's responsibilities should be referred to FERC's Office of External Affairs (202-502-6088 or 866-208-3372).

- (5) If possible, the COTP/FMSC should cooperate with FERC in publishing a Notice in the Federal Register to inform the public of the proposed project, and specifically to inform them that the Coast Guard has received a LOI and will be preparing a LOR. Additionally, the COTP/FMSC should participate in scoping meetings and other public forums initiated by FERC, and, where practicable, such participation will fulfill the Coast Guard's responsibility to hold scoping meetings. If this is not possible, the Coast Guard should publish its own Federal Register Notice (see enclosure (6)) and initiate (a) scoping meeting(s) to gather public input on the proposal. Public comments should be addressed by the applicant in preparation of the Follow-on WSA. A Press Release should generally be issued whenever a Federal Register Notice is published to help reach as wide a range of the public as possible.
- (6) Establish dialog with the cognizant CEU or MLC, and advise them to engage early with FERC to ensure that the NEPA environmental review process required by reference (b) is carried out in a timely manner. This engagement may include participation in the development of the COTP/FMSC's input to the EIS, and may involve attendance at scoping and interagency meetings and review of working copies of the EIS.
- (7) The COTP/FMSC should verify that the applicant's in-house staff or third-party contractors hired by applicants to prepare the WSA have the appropriate skills and knowledge to do so, as discussed in paragraph 5.a.(7).
- (8) The COTP/FMSC may assist the applicant in the development of the Follow-on WSA by convening ad hoc working groups of any existing committees (i.e., Area Maritime Security Committee (AMSC), Harbor Safety Committee (HSC), etc.) that the COTP/FMSC deems appropriate to assist with the assessment.

*Review & Validation of Follow-on WSA*

- (9) Upon receipt of the applicant's Follow-on WSA, the COTP/FMSC is encouraged to convene any existing committees (e.g., AMSC, HSC, etc.) or ad hoc working groups deemed appropriate and necessary to assist in the review and validation<sup>2</sup> of the WSA. Additional guidance on reviewing a risk assessment may be found in Volume 1, Chapter 5 of the Coast Guard's online Risk-Based Decision-Making Guidelines, reference (i).
- (10) *Review* means to examine the Follow-on WSA to determine if it includes all information necessary to assess the suitability of the waterway for LNG marine

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<sup>2</sup> For the purpose of this section, the term "validation" is defined in paragraph 5.b.(11). However, validation of the WSA is actually a 2-step process. First, the COTP/FMSC, in cooperation with the AMSC, HSC and other committees or workgroups, conduct a "preliminary" validation of the WSA, focusing on safety and security considerations. Then, prior to release of the LOR and as detailed in paragraph 5.b.(18), the CEU or MLC conducts an environmental review and "final" validation of both the WSA and the Coast Guard's actions, focusing on the environmental impact of the proposed LNG marine operations and the associated risk management measures.

traffic. The previously mentioned WSA checklist, enclosure (4), may be useful in this process.

- (11) *Validation* means to conduct a “reality check” of the Follow-on WSA to determine if it presents a realistic and credible analysis of the public safety and security implications of introducing LNG marine traffic into the port, and the measures intended to responsibly manage the risks. Suggested areas to consider in the validation of the Follow-on WSA could include verifying that: the appropriate port stakeholders have been consulted during the assessment development process; the appropriate critical infrastructure and key assets along the proposed route have been accurately identified; population density figures are current; credible scenarios have been considered and risk management measures appropriate for those scenarios have been identified; the impact of those risk management measures on other port stakeholders has been addressed; and the resources necessary to implement those measures are actually capable of performing the expected activities (e.g., sufficient personnel available, adequately trained, equipped and funded; equipment to perform tasks exists, is serviceable and appropriate for the intended task; agencies have appropriate jurisdiction to perform desired function, etc).
- (12) AMSC/HSC members may assist the applicant in the development of the WSA, and may also assist the COTP/FMSC in the review and validation of the WSA. However, the COTP/FMSC should be alert to potential conflicts of interest among committee members or other stakeholders who may participate in the WSA development and subsequent WSA review and validation processes. Potential conflicts of interest may be avoided by having those members who have participated in one aspect of the process dismiss themselves from participating in the other.
- (13) Any meetings subject to Federal Advisory Committee Act (FACA) requirements are required to be open to the public, announced in the Federal Register, and any documents produced from these meetings are subject to release under the Freedom of Information Act (FOIA). See paragraph 5.e.(1) for guidance on FACA applicability for AMSCs and HSCs.

#### Report to FERC

- (14) After review and validation of the Follow-on WSA, the COTP/FMSC should provide FERC with a report on the suitability of the waterway for LNG marine traffic as discussed in sections 5.c and 5.d of this Circular. Submission of this report in accordance with the timeline contained in enclosure (1) will ensure FERC receives the information prior to their publication deadline for the Draft-EIS. Additionally, the COTP/FMSC should provide a copy of the report to the appropriate District and Area Commanders as well as the environmental reviewer at the servicing CEU or MLC.

Collaboration with FERC on their EIS

- (15) It is important for both the COTP/FMSC and CEU or MLC to interact with FERC throughout the development of their EIS and provide any relevant comments or input as early as possible so they can be incorporated prior to the publication deadline established by FERC for the Draft-EIS and Final-EIS.
- (16) If the COTP/FMSC or the servicing CEU or MLC determines the Draft-EIS or Final-EIS may not address Coast Guard comments or the scope may not include certain relevant Coast Guard actions, the COTP/FMSC should notify FERC immediately of the need for additional NEPA review and documentation.

Issuance of LOR

- (17) After issuance of the Final-EIS by FERC, the COTP/FMSC should draft a LOR (see template in enclosure (7)). If the findings in the proposed LOR differ from the initial findings provided in the Waterway Suitability Report to FERC, which was incorporated into the EIS, the COTP/FMSC should promptly notify FERC as to what has changed and work with them to address the implications of these changes with regard to FERC's EIS.
- (18) The COTP/FMSC should provide the CEU or MLC with a copy of FERC's Final-EIS along with the proposed LOR so that they may review these documents for NEPA compliance. When the CEU or MLC has determined that all relevant NEPA requirements have been satisfied, they will prepare and sign a ROD (see template in enclosure (8)) as environmental reviewer and then provide the COTP/FMSC with the ROD.
- (19) Upon receipt of the signed ROD from the CEU or MLC, the COTP/FMSC will co-sign the ROD and then issue a signed LOR to the applicant and to the state and local government agencies having jurisdiction, per 33 CFR 127.009. A copy of the signed LOR and ROD should be provided to the appropriate District and Area Commanders; the servicing CEU or MLC; the Coast Guard's NEPA Program Manager, COMDT (CG-443); and the FERC Project Manager.
- (20) Applicants who are aggrieved by the decision of the COTP/FMSC may appeal as provided in 33 CFR 127.015.

Annual Review of WSA

- (21) As discussed in paragraph 5.a.(9), FERC may direct applicants to annually review and update their WSA to reflect changing conditions, such as changes to the project itself and/or changes within the port, until such time when the LNG facility goes into operation. If this annual review identifies changes to the project and/or port that may invalidate portions of the WSA, then the applicant should update the WSA and then FERC will rely on the cognizant COTP/FMSC for review and validation of the updated WSA.

- c. Waterway Suitability Report to FERC: Under the terms of referenced Interagency Agreement, FERC has requested the COTP/FMSC, upon review and validation of the applicant's WSA, to report on the suitability of the waterway for LNG marine traffic. The purpose of this report is to provide the FERC with sufficient information on the capability of the port community to implement the risk management measures the COTP/FMSC deems necessary to responsibly manage the risks of LNG marine traffic in the port. This information is necessary so that FERC can make an informed decision as to whether the project is in the public interest. The following guidance is provided to assist in developing this report, and an example of the report is provided in enclosure (9).
- (1) Per FERC policy, this report must be publicly releasable. Therefore, it must not contain any SSI or other type of controlled information, such as commercially proprietary information, that cannot be released to the general public.
  - (2) An effective report will provide a preliminary conclusion as to whether the waterway is suitable, or not suitable, for LNG operations with respect to navigational safety and security considerations, based on the capabilities of the port community at the time the report is submitted to implement the risk management measures the COTP/FMSC deems appropriate to address the risks identified in the analyzed WSA. This report will not identify any specific vulnerabilities, specific mitigating measures, nor divulge any other information that could compromise security measures. For example, while the report might discuss the availability of law enforcement assets to conduct surveillance or perform escorts, it should not describe specific techniques, staffing levels, weapon capabilities, or identify the specific agency that operates the asset. The identification of available assets by agency is considered SSI.
  - (3) An effective report will include a brief description of the process by which the WSA was reviewed and validated, avoid SSI and other controlled information, and be written so it can be easily incorporated into FERC's EIS. A copy of this report should be provided to the cognizant District and Area Commanders.
- d. Waterway Suitability Report, Supplementary Record:
- (1) This Supplementary Record should document the information and decision-making rationale that the COTP/FMSC used in assessing the suitability of the waterway for the proposed LNG operations. It should document the current resource availability in the port and what additional resources or actions may be needed to provide a safe and secure environment for LNG marine traffic. This Supplementary Record needs to be a separate document from the Waterway Suitability Report to FERC because it may discuss potential vulnerabilities or operational security measures which are considered SSI and cannot be included in the EIS.
  - (2) There are any number of reasons why a waterway could be deemed unsuitable for LNG marine traffic. For example, the hydrographic characteristics of the waterway (e.g., channel width, depth, configuration, currents, etc.) might not safely accommodate the size of the proposed vessels. Alternatively, the port community

might not have the capability to implement appropriate risk management measures. In all cases where the COTP/FMSC has determined that the waterway is unsuitable, it is important to document the reasons why, so that, if practicable, steps can be taken to make the waterway suitable. In cases where the port community lacks the capability to implement appropriate risk management measures due to insufficient resources in the port community (e.g., insufficient or improper equipment, personnel, training, funding, etc.), or for other reasons such as lack of appropriate interagency agreements to ensure adequate cooperation, insufficient jurisdictional authorities, or other administrative or bureaucratic impediments, these reasons should be clearly documented.

- (3) Inadequate capability may also derive from the fact that appropriate risk management measures may impose an irreconcilable burden upon the operations of exiting port stakeholders or involve extraordinary disruption to the general public. Where this is the basis for an unsuitability determination, information such as economic analyses, traffic management studies or other documents attesting to extraordinary or unsupportable public impacts can prove useful documentation.
  - (4) An example of a Supplementary Record to the Waterway Suitability Report is provided as enclosure (10). This Supplementary Record should be provided to FERC, as well as the cognizant District and Area Commanders, in accordance with the guidelines for handling SSI.
- e. Role of AMSCs, HSCs, and other Committees: AMSCs, HSCs, and any other relevant committees, subcommittees, or workgroups are encouraged to assist the applicant in developing the WSA, and assist the COTP/FMSC with review and validation of the WSA.
- (1) AMSCs are exempted from the provisions of the FACA per the Maritime Transportation Security Act (MTSA) of 2002 (46 USC 70112). As such, the COTP/FMSC may consult with the AMSC at any point without violating the provisions of FACA. HSCs are also exempt from FACA because they have been created as operational committees. So long as the primary function of the HSC remains operational, as opposed to advisory, the COTP/FMSC may consult with the HSC without violating the provisions of FACA. In any case where it appears that the primary function of the HSC is changing from operational to advisory, the COTP/FMSC should consult with the servicing District Legal office for guidance.
  - (2) Since much of the information in the WSA may be SSI or proprietary in nature, the COTP/FMSC will need to consider appropriate measures to ensure it is only released on a need-to-know basis. Also, if AMSC, HSC or other committee members are employed in a capacity that may prevent them from being viewed as fair and impartial in reviewing and validating the WSA, then the COTP/FMSC may need to consider dismissing them from involvement in the validation process.

- (3) The AMSC should consider using the WSA to update their AMS Plan and address the introduction of the LNG operations into the port. Future exercises by the AMSC should take into consideration the changes in the port activity introduced by the LNG operations.
- f. Other Stakeholder Involvement: Keeping in mind due regard for the protection of SSI and/or commercially proprietary information, the COTP/FMSC is encouraged to include other port stakeholders who may not be represented by the AMSC, HSC or other established committees in the waterway suitability assessment process. This may include members of the general public, as appropriate.
- g. Risk Management Measures:
- (1) It is important to note that even though the consequences of a LNG spill could be severe, the risks can be mitigated using effective measures to reduce both the vulnerability to, and the consequences of, a LNG spill. Vessel, facility, and waterway security assessments and security plans are a key component of LNG risk management. Since the risk factors for LNG marine traffic vary significantly from port to port, it is not possible to mandate specific measures or to create a “one-size-fits-all” policy. Rather, a risk-based approach must be used when evaluating the suitability of a waterway for LNG marine traffic. This risk analysis should address the following major areas of concern: safety and security of the vessel; public health and safety; protection of critical infrastructure and key assets; and consequence management.
- (2) Enclosure (11) summarizes the three concentric “Zones of Concern” identified in the Sandia Labs Report for the intentional release of LNG, and this information is particularly useful for conducting a risk assessment of a waterway with regard to LNG marine traffic. The Risk Management Quick-Reference Tool provided as enclosure (3) may also be useful in determining which risk management measures to consider. Further guidance on performing risk assessments can be obtained from Coast Guard’s Risk-Based Decision-Making Guidelines, reference (i), and from Coast Guard Headquarters’ Human Element & Ship Design Division, COMDT (G-MSE-1).
- h. Risk Management Resources: Providing safety and security is a cooperative effort requiring federal, state, local (public) and private sector resources. The mix of resources will be dependant on a variety of factors, such as legal authorities, areas of expertise, availability, operational constraints, etc. Coast Guard resources are preferred only where they possess unique authorities or capabilities that cannot be provided by other entities.
- i. Operational Guidance: Nothing in this Circular is intended to relieve the COTP/FMSC of their responsibility to follow the Coast Guard’s most current operational guidance, including the guidance for High Interest Vessels (HIVs) and Certain Dangerous Cargoes (CDCs), in determining the appropriate Coast Guard role in safe-guarding LNG marine

traffic and LNG offload operations. Since such guidance is subject to change and some is classified, it is not possible to provide more detailed operational guidance in this Circular.

- j. Public Affairs: Since LNG is not well understood by the general public and safety can become a controversial issue for citizens near a proposed LNG operation, it is important to provide the media and the general public with accurate and objective information about LNG safety. The Sandia Labs Report provides such information and should be referred to for questions about LNG safety. Early proactive public engagement is important, and the COTP/FMSC will be the primary representative of the Coast Guard in the community. Because he or she will be the focus of public interest in the Coast Guard's role in processing the application, it is recommended that the COTP/FMSC attend risk communications training. The COTP/FMSC is also encouraged to contact the appropriate District Public Affairs office for public affairs guidance. Questions beyond the scope of the Coast Guard's responsibilities, as outlined in this Circular, should be referred to FERC's Office of External Affairs (202-502-6088 or 866-208-3372).

## 6. IMPLEMENTATION.

- a. Applicants beginning the application process after the date of this Circular: As advised by FERC, applicants who begin the Pre-Filing process or file an application on or after the date of this Circular are encouraged to follow the guidance in this Circular concerning interaction with the Coast Guard and preparation of a WSA.
  - b. Applicants with applications under FERC review, or approved by FERC but whose facilities are not yet operational, prior to publication of this Circular: FERC, on a case-by-case basis and in consultation with the Coast Guard, will review the need for the applicant to complete a WSA, including the schedule for submission.
  - c. LNG facilities in operation prior to publication of this Circular: Current safeguards and security measures for LNG terminals, including related LNG marine traffic, that were in operation prior to the publication of this Circular should be considered appropriate. However, they are subject to case-by-case review if circumstances warrant. Modification or expansion of existing facilities may be such a circumstance.
7. DISCLAIMER. Each COTP/FMSC has discretionary authority on how best to address specific safety and security concerns within their area of responsibility. Nothing in this Circular is meant to override or subvert the discretion of the COTP/FMSC when addressing the unique safety and security concerns for an LNG operation. While the guidance contained in this document may assist industry, the general public, the Coast Guard as well as other federal and state regulators in applying statutory and regulatory requirements, the guidance is not a substitute for applicable legal requirements, nor is it a regulation itself. Thus, it is not intended to nor does it impose legally binding requirements on any party, including the Coast Guard, other federal or state agencies, or the regulated community.

8. CHANGES.

This Circular will be posted on the web at: [www.uscg.mil/hq/g-m/nvic/index00.htm](http://www.uscg.mil/hq/g-m/nvic/index00.htm). Changes to this Circular will be issued as necessary. Questions or suggestions for improvements of this Circular should be submitted in writing to Commandant (G-MSO-2).



T. H. GILMOUR

Rear Admiral, U.S. Coast Guard  
Assistant Commandant for Marine Safety, Security  
And Environmental Protection

- Encl (1) Timeline for Process
- (2) Guidance on Conducting a Waterway Suitability Assessment (WSA) for LNG Marine Traffic
  - (3) Risk Management Quick-Reference Tool (**Sensitive Security Information, see paragraph 2.e for guidance on how this enclosure will be distributed**)
  - (4) Checklist for Reviewing a Waterway Suitability Assessment (WSA) for LNG Marine Traffic
  - (5) Example Press Release
  - (6) Example Federal Register Notice
  - (7) Example Letter of Recommendation (LOR)
  - (8) Example Record of Decision (ROD)
  - (9) Example Waterway Suitability Report to FERC
  - (10) Example Waterway Suitability Report to FERC, Supplementary Record
  - (11) Summary of “Zones of Concern” for Intentional LNG Spills

**TIMELINE FOR PROCESS <sup>1.</sup>**  
**Applicant using FERC's "Pre-Filing" <sup>2.</sup> option**

<b>FERC's timeline</b>		<b>Month</b>	<b>USCG's timeline</b>	
Applicant:	FERC:		Applicant:	COTP/FMSC:
<b>Pre-Filing</b> (7-9 months before Filing)	<b>Start EIS process</b>	-9	<b>Submit LOI &amp; Preliminary WSA</b> (at same time as Pre-Filing)	<b>Start LOR process &amp; review of Preliminary WSA</b>
		-8		
		-7		
		-6		
		-5		
		-4		
		-3		
		-2		
		-1		
<b>Filing</b>		0	<b>Submit Follow-on WSA</b>	<b>Review/Validation of Follow-on WSA</b>
		1		
		2		
		3		<b>Issue Waterway Suitability Report to FERC</b>
	<b>Issue Draft-EIS</b>	4		
		5		
		6		
		7		
	<b>Issue Final-EIS</b>	8		<b>Issue LOR</b> (anytime after Final-EIS issued)
		9		
	<b>Issue Final Order</b> (10-12 months after Filing)	10		
		11		
		12		

**Footnotes:**

1. This timeline is not mandated by any regulation, but is a targeted timeline by FERC to meet the needs of their applicants and Commissioners.
2. FERC's "NEPA Pre-Filing Process" encourages industry to engage in early project development involvement with the public as well as federal agencies, as contemplated by the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) regulations.

**TIMELINE FOR PROCESS <sup>1.</sup>**  
**Applicant using FERC's "Traditional Filing" <sup>2.</sup> option**

FERC's timeline		Month	USCG's timeline	
Applicant:	FERC:		Applicant:	COTP/FMSC:
<b>Filing</b>	<b>Start EIS process</b>	0	<b>Submit LOI &amp; Preliminary WSA</b> (at same time as Filing)	<b>Start LOR process &amp; review of Preliminary WSA</b>
		1		
		2		
		3		
		4		
		5	<b>Submit Follow-on WSA</b>	<b>Review/Validation of Follow-on WSA</b>
		6		
		7		
		8		<b>Issue Waterway Suitability Report to FERC</b>
	<b>Issue Draft-EIS</b>	9		
		10		
		11		
		12		
		13		
	<b>Issue Final-EIS</b>	14		<b>Issue LOR</b> (anytime after Final-EIS issued)
		15		
	<b>Issue Final Order</b>	16		

Footnotes:

1. This timeline is not mandated by any regulation, but is a targeted timeline by FERC to meet the needs of their applicants and Commissioners.
2. If the applicant chooses not to use FERC's "NEPA Pre-Filing Process," then this is the applicable timeline.

## **Guidance on Conducting a Waterway Suitability Assessment (WSA) for LNG Marine Traffic**

**INTRODUCTION:** The following guidance is provided to assist the applicant in conducting a Waterway Suitability Assessment (WSA) for LNG marine traffic. The applicant should engage the Coast Guard Captain of the Port (COTP)/Federal Maritime Security Coordinator (FMSC) while conducting the assessment to ensure that the thoroughness of the assessment meets the COTP/FMSC's expectations. The COTP/FMSC may assist in the WSA process by convening ad hoc working groups of any existing committees (i.e. Harbor Safety Committee, Area Maritime Security Committee, etc.) that the COTP/FMSC deems necessary to assist with the assessment. Once the applicant has completed the assessment they should present it to the COTP/FMSC for review. Using the WSA, the COTP/FMSC and the appropriate port officials and stakeholders will ultimately make a determination on the suitability of the waterway for the proposed LNG operation, and report their findings to the Federal Energy Regulatory Commission (FERC) for inclusion in the final Environmental Impact Statement for the project. To promote consistency and reduce duplication of efforts, the applicant is encouraged to consult the U.S. Coast Guard's Risk-Based Decision-Making Guidelines (reference (i) in the NVIC), the local Area Maritime Security Plan (AMSP), and the Sandia National Laboratories Report SAND2004-6258, "Guidance on Risk Analysis and Safety Implications of a Large Liquefied Natural Gas (LNG) Spill Over Water."

**NOTE:** A "Preliminary WSA" may be submitted at the time an applicant starts the Pre-Filing process with FERC. The Preliminary WSA should attempt to identify and outline the subject matter suggested in this guidance. This preliminary document need not contain detailed studies or conclusions. It should explain the project and discuss the obvious impacts to the port and waterway, and discuss the risk assessments, risk management strategies and resources in broad terms.

**SCOPE:** Applicants are encouraged to conduct a risk-based assessment. The approach considers risk as the combination of the consequences of an undesired event and the associated probability of that event occurring. Fundamentally, this means asking, "What can go wrong?", "How severe can the consequences be?" and, "What is the likelihood that this will occur?" By answering these three questions the stakeholders can effectively characterize the risk.

The following items define the scope of the WSA.

1. The WSA should address the transportation of LNG from an LNG tanker's entrance into U.S. territorial waters, through its transit to and from the LNG receiving facility, and include operations at the vessel/facility interface.
2. The WSA should address the navigational safety issues (see 33 CFR 127.009) and port security issues introduced by the proposed LNG operations.
3. The WSA should identify the relevant safety and security issues from the broad viewpoint of impact to the entire port, as well as provide a detailed review of specific points of concern along the LNG tanker's proposed transit route.

## **Guidance on Conducting a Waterway Suitability Assessment (WSA) for LNG Marine Traffic**

**OUTLINE:** The following suggested outline is not meant to be prescriptive; however, it is recommended that applicants address all of the topics listed in a logical and discernable manner.

### **WATERWAY SUITABILITY ASSESSMENT FOR LNG OPERATIONS**

- A. Port Characterization
- B. Characterization of LNG Facility and LNG Tanker Route
- C. Risk Assessments (Safety and Security)
- D. Risk Management Strategies
- E. Resource Needs for Safety, Security and Response
- F. Conclusions and Recommendations

**A. PORT CHARACTERIZATION:** The AMSP should be used to provide the baseline information for this section. The port characterization should be a synthesis and summary of information about the port environment, as a whole, that addresses the needs and interests of decision makers and of interested and affected parties. The WSA should evaluate the impact of LNG operations on the entire port community, primarily to assess the resource requirements needed to provide a safe and secure environment for the proposed LNG operations. It is recommended that this section include graphics that show the "footprint" of the LNG operation in the port and that careful attention is paid to the identification of populated areas and critical infrastructure and key assets.

**B. CHARACTERIZATION OF LNG FACILITY AND LNG TANKER ROUTE:** This review should focus on the entire length of the tanker's route. To facilitate detailed study, it is suggested that the route be sub-divided into segments based on a logical methodology. The Area Maritime Security Committee may already have completed this work in the AMSP, and it is highly recommended that the WSA follow the AMSP wherever possible. The local harbor pilots should also be consulted during this process.

At a minimum the characterization should include the following:

- a. The information listed in 33 CFR 127.007 and 127.009.
- b. Details of the proposed LNG facility waterfront configuration and physical construction.
- c. Proposed LNG tanker characteristics and the frequency of deliveries.
- d. The "Zones of Concern" listed in Enclosure (11) should be applied to the length of the transit to determine the main areas of concern along the waterway. It is highly recommended that the WSA include graphics that depict the outer perimeter of the zones along the entire transit, in order to assess what port and community features fall within them.
- e. Population density - for the purpose of this assessment, population density may be broken into two categories. High density populations are areas where the population is 9,000 persons per square mile or greater. Medium density populations are defined as 1,000 to 9,000 persons per square mile.
- f. Critical infrastructure and key assets – this information should be listed in the AMSP.

## **Guidance on Conducting a Waterway Suitability Assessment (WSA) for LNG Marine Traffic**

- g. The density and character of marine traffic along each segment of the waterway. This should be as detailed as possible and identify commercial, military, and recreational vessel use. It should also include marine events and seasonal use information.
- h. Shore-side community demographics and important structures (e.g., industrial, commercial, residential, city centers, military installations, schools, hospitals, cultural centers, etc.). Sensitive environmental areas should also be identified.
- i. The maneuvers required to berth the vessel and their potential impacts to other traffic in the waterway.

**C. RISK ASSESSMENTS (SAFETY AND SECURITY):** After the port environment and transit route have been characterized, the WSA should analyze the risks that arise from the introduction to LNG operations into the port. The goal of this section of the WSA is to discern and understand the individual risks, in terms of probabilities, threats, vulnerabilities and consequences, so that appropriate risk management strategies can be developed in the next section. The WSA should go into as much detail as possible. Key assumptions should be identified and a sensitivity analysis performed.

The applicant may use any assessment methodology deemed appropriate. However, it is recommended that the applicant use a methodology that meets generally accepted risk-based decision-making industry standards and that the assessment is as objective and transparent as possible. The Risk Assessment portion of the WSA looks at the conditions that could result in a release of LNG. The events that could trigger a release may be accidental (collisions, groundings, spills, etc.) or intentional (terrorist act, sabotage, etc.). The accidental releases should be considered in a safety assessment that looks at the probability and consequences of various incidents. For the unique case of intentional releases a security assessment is performed.

**1) SAFETY RISK ASSESSMENT:** The safety assessment evaluates the risks of accidental releases of LNG. The set of incidents that may lead to an accidental release should be identified and the likelihood and consequences of those events should be evaluated. “What-if...?” and Change Analysis tools may be useful in this evaluation. The consequence evaluation should be based on the accidental release scenarios described in the Sandia National Labs Report, SAND2004-6258. This will identify those areas where an unintentional release of LNG poses significant potential consequences.

**2) SECURITY RISK ASSESSMENT:** The security assessment evaluates the risks of intentional releases of LNG. It should be viewed as three separate assessments: threat, vulnerability, and consequence. For security related events, the probability is evaluated in terms of threat and vulnerability, where threat is the likelihood of an attack and vulnerability is the likelihood that an attack will succeed. As with the safety risk assessment, consequences should be considered in light of the intentional release scenarios described in the Sandia Labs Report.

**i) THREAT ASSESSMENT:** A threat assessment is an evaluation of ways in which particular people and property may be attacked, the seriousness of such threats, and the

## **Guidance on Conducting a Waterway Suitability Assessment (WSA) for LNG Marine Traffic**

potential means by which they may be carried out. At a minimum the assessment should thoroughly address those specific attack scenarios identified in the Sandia Report, which include sabotage, projectiles, aerial, surface and underwater threats. It should also include a full consideration of potential attack methods throughout the waterway. The assessment should also identify areas in the port such as manmade structures, tributaries and land masses along the transit waterway from which an attack could be launched.

**ii) VULNERABILITY ASSESSMENT:** A vulnerability analysis is the portion of the WSA that attempts to identify the exposures that might be exploited to ensure the success of an attempted terrorist attack. These may be considered as two types of vulnerabilities, asset and system. The asset vulnerabilities consider the physical properties of the target that may influence the likelihood of success of a terrorist attack. The system vulnerabilities consider the ability of the terrorist to successfully launch an attack.

**iii) CONSEQUENCE ANALYSIS:** Using the zones of concern described in Enclosure (11), graphically depict where the three zones of concern intersect with population areas, critical infrastructure and key assets, critical waterways, and commercial, industrial, or environmentally sensitive areas in and adjacent to the transit waterways. This will identify those areas where an intentional release of LNG would have the most dire consequences.

**D. RISK MANAGEMENT STRATEGIES:** Risk management is a process in which the applicant identifies ways to prevent an identified attack or accident from occurring and develops measures to mitigate the consequences should a breach of the LNG tanker occur. Using the Risk Management Quick-Reference Tool, enclosure (3) which is available from the COTP/FMSC, the applicant should identify possible risk management strategies for identified areas of risk, and determine which risk management strategies are appropriate. The matrix is not exhaustive; the applicant should add any and all possible risk management strategies that are available or could be made available in the port. Even if all strategies are not applied, developing a full list of options is an important exercise.

**E. RESOURCE NEEDS FOR SAFETY, SECURITY AND RESPONSE:** Based on the sum of proposed risk management strategies, the WSA should identify the resources needed to implement them. Consideration should be given to the length of the vessel transit and the fact that some resources needed in different places along the route may have to originate from a variety of sources or physical locations. Other resources may be single-sourced. The applicant should consider the use of private as well as public resources to implement the risk management strategies. While specific resources should be tied to specific risk management measures, the total resource needs should be tabulated. There may be several options or strategies for how all the risk management strategies can be implemented, and the applicant is encouraged to discuss different options or strategies. Some risk management strategies may call for interagency cooperation or procedural changes, but not necessarily more resources. All of these issues should be discussed in the WSA. Additionally, the WSA should provide a gap analysis to identify what new resources are needed and how these new resources might be obtained.

## **Guidance on Conducting a Waterway Suitability Assessment (WSA) for LNG Marine Traffic**

Finally, scalable risk management measures should be considered to address LNG operations at elevated Maritime Security (MARSEC) levels. The specifics of the threat or causal event leading to an elevated MARSEC level may dictate exactly how the LNG safety and security should be enhanced; however, the WSA may make recommendations about how to enhance safety and security for a non-specific threat. For instance, what individual risk management strategies should be increased in strength or resource number (e.g., adding more escort vessels to a routine escort)? Or, for specific areas of concern along the transit, what additional new risk management strategies should be applied (e.g., creating roving shoreside patrols)? What combination of enhanced regular strategies and new strategies would provide the best improvement in overall safety and security?

**F. CONCLUSIONS AND RECOMMENDATIONS:** The conclusion section of the WSA is an opportunity to summarize, in general, the port safety and security implications of introducing LNG operations in the port. The most obvious or pressing resource issues should be identified here, along with a summary of the gap analysis which identifies what new resources are needed and how these new resources might be obtained. Finally, any other important issues that arose during the research for the WSA should be discussed here.

Enclosure (3) to this Circular contains Sensitive Security Information (SSI); therefore, it is not subject to public disclosure. If disclosed, the SSI could be used to subvert or exploit the security programs of vessels, facilities, or ports. SSI material requires appropriate handling in accordance with 49 CFR 1520 and reference (d). **Members of the maritime industry, members of federal, state, or local government agencies, and other parties that can demonstrate a need to know may submit a request for enclosure (3) to the cognizant COTP/FMSC or Commandant (G-MPS).**

## Checklist for Reviewing a Waterway Suitability Assessment (WSA) for LNG Marine Traffic

This checklist can be used by the COTP/FMSC or members of a standing committee or work group to review a Waterway Suitability Assessment (WSA). The reviewer should fill in the appropriate box(es) for each section under review. For any entries deemed not applicable, check “N/A” and provide a brief explanation.

SCOPE OF ASSESSMENT AND GENERAL CONTENT REVIEW				
1.	Yes	No	N/A	Does assessment identify the professional competencies of those selected to conduct an assessment?
2.	Yes	No	N/A	Does assessment cover the LNG tanker's transit from entrance into the U.S. territorial seas (or COTP AOR) through the transit to and from the receiving facility?
3.	Yes	No	N/A	Does assessment address the physical vessel-facility interface and cargo operations?
4.	Yes	No	N/A	Does assessment address broad port level concerns?
5.	Yes	No	N/A	Does assessment focus on the transit waterway and facility site in adequate detail?
6.	Yes	No	N/A	Does assessment address both safety and security issues?
7.	Yes	No	N/A	Is assessment written for an audience comprised of various port stakeholders?
Comments:				

## Checklist for Reviewing a Waterway Suitability Assessment (WSA) for LNG Marine Traffic

<b>A. PORT CHARACTERIZATION:</b>				
1.	Yes	No	N/A	Does assessment adequately summarize the port environment?
2.	Yes	No	N/A	Does assessment describe the general issues and port level impacts of introducing LNG operations into the port?
3.	Yes	No	N/A	Does assessment graphically show where the LNG operations are proposed (i.e., a "footprint") so that the relative physical impact to the port can be gauged?
4.	Yes	No	N/A	Is the port characterization in general alignment with the Area Maritime Security Plan and any other important local references?
Comments:				

## Checklist for Reviewing a Waterway Suitability Assessment (WSA) for LNG Marine Traffic

<b>B. CHARACTERIZATION OF THE LNG FACILITY AND LNG TANKER ROUTE:</b>				
1.	Yes	No	N/A	Does assessment sub-divide the transit route into logical segments for detailed review?
2.	Yes	No	N/A	Does assessment describe the transit route in adequate detail to identify important navigation safety issues?
3.	Yes	No	N/A	Does assessment describe all locks, bridges, or other man-made obstructions in the waterway?
4.	Yes	No	N/A	Does assessment describe the natural features and hazards of the waterway?
5.	Yes	No	N/A	Does assessment describe the transit route in adequate detail to discern points or areas that pose security concerns or problems?
6.	Yes	No	N/A	Does assessment adequately describe the density and character of marine traffic in the waterway?
7.	Yes	No	N/A	Does assessment include information on regular and non-routine marine events and seasonal considerations that affect the waterway?
8.	Yes	No	N/A	Does assessment describe the physical location of the facility, with a description of the proposed facility?
9.	Yes	No	N/A	Does assessment describe the proposed LNG vessels' characteristics and the frequency of LNG shipments to or from the facility?
10.	Yes	No	N/A	Does assessment describe the following factors adjacent to facility? <ul style="list-style-type: none"> <li>• Depths of the water.</li> <li>• Tidal range.</li> <li>• Protection from high seas.</li> <li>• Natural hazards, including reefs, rocks, and sandbars.</li> <li>• Underwater pipelines and cables.</li> <li>• Distance of berthed vessel from channel and width of channel.</li> </ul>
11.	Yes	No	N/A	Does assessment graphically depict the "zones of concern" overlaid along the transit route?
12.	Yes	No	N/A	Does assessment identify critical infrastructure and key assets along transit route? (at a minimum, the CI as listed in the AMS Plan).
13.	Yes	No	N/A	Does assessment identify populated areas, shoreside use and important community structures along the transit route?
14.	Yes	No	N/A	Does assessment show high density population areas (>9,000 persons per square mile) and medium density population areas (1,000 to 9,000 persons per square mile)?
Comments: <div style="text-align: right;">(use additional sheets if needed)</div>				

## Checklist for Reviewing a Waterway Suitability Assessment (WSA) for LNG Marine Traffic

<b>C. RISK ASSESSMENTS (SAFETY AND SECURITY):</b>				
1.	Yes	No	N/A	Does analysis use a specific industry or government accepted methodology? If not, is the methodology used sufficient?
2.	Yes	No	N/A	Does analysis address both safety and security issues and correctly distinguish the differences and similarities between them?
3.	Yes	No	N/A	For the safety assessment, does the analysis identify all of the potential scenarios for accidental release of LNG?
4.	Yes	No	N/A	Does assessment adequately address the consequences of an accidental release of LNG?
5.	Yes	No	N/A	For the security assessment, does the analysis address those specific attack scenarios identified in the Sandia study, which include sabotage, projectile threats, aerial, surface, and underwater threats?
6.	Yes	No	N/A	Does analysis consider attack scenarios or accidents types that are in addition to those listed in the Sandia report and the Risk Management Quick-Reference Tool?
7.	Yes	No	N/A	Does assessment adequately identify areas in the port from which an attack could be launched?
8.	Yes	No	N/A	Does assessment adequately address vulnerabilities, both in terms of the physical target and likelihood of a successful attack?
9.	Yes	No	N/A	Does vulnerability assessment consider the vessel, the facility AND the port community?
10.	Yes	No	N/A	Does analysis identify the points or areas along the transit route where attacks would have the most significant consequences?
11.	Yes	No	N/A	Does assessment use the "zones of concern" (Encl.11).
12.	Yes	No	N/A	Does analysis lead to a distinct set of issues which can be addressed with risk management strategies?
13.	Yes	No	N/A	Does the assessment clearly identify the key assumptions that were made in performing the analysis?
14.	Yes	No	N/A	Does the report include a sensitivity analysis of the key assumptions and characterize their effect on risk?
Comments:				

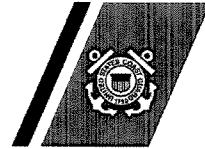
## Checklist for Reviewing a Waterway Suitability Assessment (WSA) for LNG Marine Traffic

<b>D. RISK MANAGEMENT STRATEGIES:</b>				
1.	Yes	No	N/A	Does assessment adequately use the Risk Management Quick-Reference Tool and/or other sources to identify possible risk management strategies to consider for identified areas of risk and determine which risk management strategies are appropriate for each?
2.	Yes	No	N/A	Does assessment identify or propose additional risk management strategies that are locally available or that might be made available?
3.	Yes	No	N/A	Is assessment's identification of risk management strategies sensible for the given issues?
Comments:				

## Checklist for Reviewing a Waterway Suitability Assessment (WSA) for LNG Marine Traffic

<b>E. RESOURCE NEEDS FOR SAFETY, SECURITY AND RESPONSE:</b>				
1.	Yes	No	N/A	Does assessment systematically identify resources needed to apply each risk management strategy?
2.	Yes	No	N/A	Do the resources that are identified provide the minimum level of support for the risk management strategies?
3.	Yes	No	N/A	Do resources identified reflect the need for more robust/effective risk management measures for operations in close proximity to areas of high population density and critical infrastructure and key assets?
4.	Yes	No	N/A	To what degree are the resources identified multi-mission? (Can they support more than one risk management strategy?)
5.	Yes	No	N/A	Does assessment consider private as well as public resources?
6.	Yes	No	N/A	Does assessment consider the length of the vessel transit, and such operational issues as range, time on station, and sustainability?
7.	Yes	No	N/A	Does assessment identify different options to achieve the risk management strategies with various resource mixes?
8.	Yes	No	N/A	Does assessment identify any instances where risk management strategies could be achieved without physical resources (administrative or procedural items)?
9.	Yes	No	N/A	Are the combined resource needs summarized by type?
10.	Yes	No	N/A	Is the total resource need summarized / tabulated?
11.	Yes	No	N/A	Does assessment provide a gap analysis to identify what resources are needed but not currently available?
12.	Yes	No	N/A	Does assessment provide any potential solutions for identified resource gaps?
13.	Yes	No	N/A	Does assessment provide options for increasing resources or adding risk management strategies during periods of increased MARSEC or surge operations?
14.	Yes	No	N/A	In general, does the resource analysis provide operationally workable solutions for risk management strategy coverage?
Comments: <div style="text-align: right;">(use additional sheets if needed)</div>				

U.S. Department of  
Homeland Security  
**United States  
Coast Guard**



# Press Release

Date:

Contact: **[POC]**  
**[(xxx) xxx-xxxx]**

**COAST GUARD WILL EVALUATE SUITABILITY OF [WATERWAY] FOR  
LIQUEFIED NATURAL GAS SHIPS  
[COMPANY] ANNOUNCED INTENT TO BUILD AN IMPORT FACILITY AT [LOCATION]**

**[City, State]** – The U.S. Coast Guard **[Unit Name]** will assess safety and security issues associated with liquefied natural gas tankers traveling on **[Waterway]** in order to make a recommendation to the Federal Energy Regulatory Commission (FERC) regarding **[Company]**'s proposal to build a liquefied natural gas terminal at **[Location]**.

The Coast Guard received official notification of **[Company]**'s plans on **[date]**.

**SAMPLE QUOTE** "We plan to work very closely with local officials, our Harbor Safety Committee and the Area Maritime Security Committee in evaluating this proposal," said **[COTP's Name]**, Coast Guard Captain of the Port at **[Port Location]**. "We will also be looking for comments from the general public to ensure we have considered the full range of issues associated with moving LNG tankers on the **[Waterway]**."

FERC is responsible for authorizing the siting, construction, and operation of onshore LNG facilities. Once FERC receives an application for an LNG facility, it is required to complete an Environmental Impact Statement (EIS), evaluating issues ranging from air quality and biological impacts, to cultural and socioeconomic impacts, to safety and security impacts. The Coast Guard will serve as a cooperating agency for FERC's EIS.

**[Company]** will provide the Coast Guard with a safety and security assessment that identifies any navigational safety hazards as well as potential security threats, along with recommended mitigation measures and the resources (federal, state, local and private sector) that will be needed to provide an acceptable level of safety and security for the proposed LNG operations. This assessment will be submitted to the Coast Guard so that it can be reviewed and validated by key stakeholders at the port, such as the Area Maritime Security Committee. Based on this assessment, the Coast Guard Captain of the Port will evaluate the suitability of the waterway for LNG marine traffic and provide his or her findings to FERC for inclusion in its EIS.

Further information on this proposal can be found at \_\_\_\_\_.

###

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[CGD05-04-201]

Notice, Request for Comments; Letter of Recommendation, LNG

***[Project Name, City, State]***

AGENCY: Coast Guard, DHS.

ACTION: Request for comments; notice of public meeting.

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SUMMARY: In accordance with the requirements in 33 CFR 127.009, the U.S. Coast Guard Captain of the Port (COTP) ***[Applicable Port Name]*** is preparing a Letter of Recommendation as to the suitability of the ***[Waterway Name]*** for liquefied natural gas (LNG) marine traffic. The letter of recommendation is in response to a Letter of Intent submitted by ***[Project Name]*** to operate a LNG facility in ***[City and State]***. The COTP ***[Applicable Port Name]*** is soliciting written comments and related material, and will hold a public meeting seeking comments, pertaining specifically to maritime safety and security aspects of the proposed LNG facility. In preparation for issuance of a letter of recommendation and the completion of certain other regulatory mandates, the COTP ***[Applicable Port Name]*** will consider comments received from the public as input into a formalized risk assessment process. This process

will assess the safety and security aspects of the facility, adjacent port areas, and navigable waterways.

DATES: All written comments and related material must reach the Coast Guard on or before **[Specific Date]**. In addition, a public meeting will be held **[Date and Time of Event]**.

Those who plan to speak at the meeting should provide their name by **[TBD]** to **[Unit POC]** using one of the methods listed under FOR FURTHER INFORMATION CONTACT. The comment period associated with the public meeting will remain open for seven days following the meeting. The meeting location is: **[Location of Event City, State]**.

ADDRESSES: You may submit written comments to Commanding Officer, U.S. Coast Guard **[Unit Name and Address]**. **[Unit Name]** maintains a file for this notice. Comments and material received will become part of this file and will be available for inspection and copying at **[Unit Name]** between 8 a.m. and 3 p.m. Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: If you have questions on this notice, contact **[Unit POC]** at **[Unit Name]** by one of the methods listed below:

- (1) Phone at **[Phone #]**
- (2) E-mail at **[Hyperlink]**
- (3) Fax to **[Fax #]**

SUPPLEMENTARY INFORMATION:

Request for Written Comments

We encourage you to submit written comments and related material pertaining specifically to marine safety and security aspects associated with the proposed LNG facility. If you do so, please include your name and address, identify the docket number for this notice (**[Relevant Docket Number]**), and give the reason for each comment. You may submit your comments and related material by mail, or hand delivery, as described in ADDRESSES, or you may send them by fax or e-mail using the contact information under FOR FURTHER INFORMATION CONTACT. To avoid confusion and duplication, please submit your comments and material by only one means.

If you submit comments by mail or hand delivery, submit them in an unbound format, no larger than 8 1/2 by 11 inches, suitable for copying and electronic filing. If you submit them by mail and would like to know that they reached U.S. Coast Guard **[Unit Name]**, please enclose a stamped, self-addressed postcard or envelope.

Public Meeting

Due to the scope and complexity of this project, we have decided to hold a public meeting to allow the public the opportunity to comment on the proposed LNG facility.

With advance notice, organizations and members of the public may provide oral statements regarding the suitability of the **[Waterway Name]** for LNG vessel traffic. In the interest of time and use of the public meeting facility, oral statements should be limited to five minutes. Persons wishing to make oral statements should notify **[Unit POC]** using one of the methods listed under FOR FURTHER INFORMATION CONTACT by **[Date]**. Written comments may be submitted at the meeting or to the Docket up to **[Date]**.

Background and Purpose

In accordance with the requirements of 33 CFR 127.007, **[Name of Project or Company]** submitted a Letter of Intent on **[Date]** to operate an LNG facility in **[City, State]**. **[Name of Project]** is a wholly owned subsidiary of **[Name of]** Production Company.

The proposed terminal is an LNG import, storage, and re-gasification facility. LNG carriers (ships) would berth at a new pier and LNG would be transferred by pipeline from the carriers to one of **[Number]** storage tanks, each with a net capacity of **[Size, Volume]** cubic meters (m<sup>3</sup>) and a gross capacity of **[Size, Volume]** m<sup>3</sup>. The LNG would then be re-gasified and metered into natural gas pipelines. LNG would be delivered to the terminal in double-hulled LNG carriers

ranging in capacity from *[Size, Volume]* m<sup>3</sup> to *[Size, Volume]* m<sup>3</sup>. The larger carriers would measure up to approximately *[Length]* feet long with up to approximately a *[Breadth]* foot wide beam, and draw *[Draught]* feet of water. The *[Name of Project]* terminal would handle approximately *[Number]* vessels per year, depending upon natural gas demand, and carrier size, with shipments arriving about every *[Number]* days.

The U.S. Coast Guard exercises regulatory authority over LNG facilities which affect the safety and security of port areas and navigable waterways under Executive Order 10173, the Magnuson Act (50 U.S.C. 191), the Ports and Waterways Safety Act of 1972, as amended (33 U.S.C. 1221, et seq.) and the Maritime Transportation Security Act of 2002 (46 U.S.C. Section 701). The Coast Guard is responsible for matters related to navigation safety, vessel engineering and safety standards, and all matters pertaining to the safety of facilities or equipment located in or adjacent to navigable waters up to the last valve immediately before the receiving tanks. The Coast Guard also has authority for LNG facility security plan review, approval, and compliance verification as provided in Title 33 CFR Part 105, and recommendation for siting as it

pertains to the management of vessel traffic in and around the LNG facility.

Upon receipt of a letter of intent from an owner or operator intending to build a new LNG facility, the Coast Guard COTP conducts an analysis that results in a letter of recommendation issued to the owner or operator and to the state and local governments having jurisdiction, addressing the suitability of the waterway to accommodate LNG vessels. Specifically, the letter of recommendation addresses the suitability of the waterway based on:

- The physical location and layout of the facility and its berthing and mooring arrangements.
- The LNG vessels' characteristics and the frequency of LNG shipments to the facility.
- Commercial, industrial, environmentally sensitive, and residential areas in and adjacent to the waterway used by the LNG vessels en route to the facility.
- Density and character of marine traffic on the waterway.
- Bridges or other manmade obstructions in the waterway.
- Depth of water.
- Tidal range.
- Natural hazards, including rocks and sandbars.
- Underwater pipelines and cables.
- Distance of berthed LNG vessels from the channel, and the width of the channel.

In addition, the Coast Guard will review and approve the facility's operations manual and emergency response plan (33 CFR 127.019), as well as the facility's security plan (33 CFR 105.410). The Coast Guard will also provide input to other federal, state, and local government agencies reviewing the project. Under an interagency agreement, the Coast Guard will provide input to, and coordinate with, the Federal Energy Regulatory Commission (FERC), the lead federal agency for authorizing the siting and construction of onshore LNG facilities, on maritime safety and security aspects of the [Name of Project] project. FERC will be the lead agency for the Environmental Impact Statement (EIS) mandated by the National Environmental Policy Act. To help FERC make sure that the EIS covers the Coast Guard's Letter of Recommendation and other actions under this proposal, the Coast Guard will serve as a cooperating agency.

In order to complete a thorough analysis and fulfill the regulatory mandates cited above, the COTP **[Applicable Port Name]** will be conducting a formal risk assessment, evaluating various safety and security aspects associated with the **[Name of Project]** proposed project. This risk assessment will be accomplished through a series of workshops focusing on the areas of waterways safety, port security, and consequence management, with involvement from

Enclosure (6) to NVIC 05-05

a broad cross-section of government and port stakeholders with expertise in each of the respective areas. The workshops will be by invitation only. However, comments received during the public comment period will be considered as input into the risk assessment process.

Additional Information

Additional information about the **[Name of Project]** LNG project is available from FERC's Office of External Affairs at 1-866-208-FERC or on the FERC Internet Web site (<http://www.ferc.gov>) using their eLibrary link. For assistance, please contact FERC online support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or toll free at 1-866-208-3676, or for TTY contact 1-202-502-8659.

Information on Services for Individuals With Disabilities

For information on facilities or services for individuals with disabilities, or to request assistance at the meeting, contact **[Unit POC]** listed under FOR FURTHER INFORMATION CONTACT as soon as possible.

Dated:

**[COTP's Name]**

Captain, U.S. Coast Guard

Captain of the Port **[Applicable Port Name]**

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
United States Coast Guard Activities

Relevant  
Address  
Here  
Staff Symbol:  
Phone:  
Fax:

16611

**[Date]**

Mr./Ms. \_\_\_\_\_  
Project Manager, **[Project Name]** LNG Terminal Project

Dear Mr./Ms. \_\_\_\_\_:

This is the Coast Guard's Letter of Recommendation required by 33 CFR 127.009. Based upon the Record of Decision issued by the Federal Energy Regulatory Commission (FERC) on **[Date]**, I have determined that the waterway is suitable for the LNG marine traffic associated with your project, provided that the terms and conditions specified in the FERC's Record of Decision are satisfied.

**(OR)**

This is the Coast Guard's Letter of Recommendation required by 33 CFR 127.009. Based upon my review of the information provided in your Letter of Intent dated **[Date]** and my review of your Waterway Security Assessment dated **[Date]**, I have determined that the waterway is not suitable for the LNG marine traffic associated with your project. The specific reasons supporting my decision that the waterway is not suitable are discussed in a supplementary report which will be made available to you under the conditions established for handling Security Sensitive Information.

**(NOTE: follow guidance provided in enclosure (10) for Supplementary Report to FERC)**

If you are aggrieved by this decision, you may appeal in accordance with 33 CFR 127.015. For further information, please contact **[Unit POC]** at **[Phone #]**.

Sincerely,

**[Name]**

Captain, U.S. Coast Guard

Captain of the Port **[Applicable Port Name]**

Federal Maritime Security Coordinator

Copy: CCGD/[#] (m)  
**[LANT or PAC]AREA( [L or P] m)**  
CEU or MLC **[as appropriate]**

USCG  
RECORD OF DECISION

On *(date)* I have completed a review of the Waterway Security Assessment for the *(name of LNG project)* submitted by *(name of applicant or entity that prepared the WSA)* on *(date submitted)*. The purpose and need for my action is to determine whether the waterway will be safe and secure if an LNG facility is located at (describe location). Based upon this review, and consultations with my Area Maritime Security Committee *(where applicable, identify other Committees or stakeholders that were consulted)* I have determined that the waterway *(is or is not)* suitable for the LNG marine traffic associated with this project for the reasons discussed below.

*(Insert one of the following two paragraphs depending on the applicable situation):*

The waterway is suitable because there is sufficient capability currently in place or readily available to implement the security and safety measures deemed appropriate for the proposed operation.

*(Or)*

The waterway is not suitable for the proposed LNG marine traffic due to *(briefly state reasons, e.g., hydrographic characteristics of waterway will not support vessels of this size; insufficient capability to effectively implement the security and safety measures deemed necessary to responsibly manage the risks posed by the LNG marine traffic, etc.)*

The specific reasons supporting my determination are detailed in a supplementary Sensitive Security Information report being provided separately. The following are the economic, technical, USCG statutory mission, and national policy considerations (as applicable) that were weighed in reaching my decision: *(Explain how these considerations, as applicable, entered into the decision making.)*

To meet the requirements of the National Environmental Policy Act, FERC has completed an Environmental Impact Statement (EIS) with the Coast Guard acting as a cooperating agency. That EIS considered the effects of Coast Guard's proposed action(s) associated with the proposed FERC LNG licensing decision. In reaching my decision/recommendation on the Coast Guard's proposed action(s), I have considered the information contained in the above mentioned EIS on the potential for environmental impacts. The FERC EIS considered the "no action" alternative as well as the impact of granting an LOR *(and... add any other USCG actions covered by the FERC EIS)* as specified herein. The "no action" alternative is environmentally preferable.

*(Insert one of the following two paragraphs depending on the applicable situation)*

In this case, my finding that the waterway is not suitable is the functional equivalent of the no-action alternative.

***(Or)***

In this case, my preferred alternative is to find that the waterway is suitable. This is necessitated by the nation's need for energy, ***(List all considerations)*** which compels me to choose an alternative other than the environmentally preferable one.

All USCG comments to the EIS have been satisfied, and we, therefore, (pursuant to 40 CFR 1506.3c) adopt the portions of the EIS that cover proposed issuance of the LOR ***(and... add any other USCG actions covered in the EIS)***. This letter represents the Coast Guard's record of decision on our adopted portions of the FERC EIS.

***(Insert one of the following two paragraphs depending on the applicable situation):***

All practicable means to avoid or minimize harm from the Coast Guard's issuance of the LOR ***(and other associated USCG actions – insert if any)*** have been adopted. Our monitoring and enforcement program for the mitigation is as follows...: ***(enter info about any monitoring and enforcement programs)***

***(Or)***

All practicable means to avoid or minimize harm from the Coast Guard's issuance of the LOR ***(and... add any other USCG actions covered by the EIS)*** have not been adopted because.....

For further information, please contact ***(rank, name, title)*** at ***(phone #)***.

***Describe appeal process; Pursuant to 33 CFR 127...***

\_\_\_\_\_  
Date

\_\_\_\_\_  
Environmental Reviewer Title/Position

\_\_\_\_\_  
Date

\_\_\_\_\_  
Captain of the Port / Federal Maritime Security Coordinator

Copy: CCGDX (m)  
XAREA(Xm)  
CG 8T  
CEU or MLC, as appropriate

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
United States Coast Guard Activities

Relevant  
Address  
Here  
Staff Symbol:  
Phone:  
Fax:

16611

Director of Gas – Environmental & Engineering, PJ-11  
Federal Energy Regulatory Commission  
888 First Street, NW  
Washington, DC 20426

Dear Mr./Ms. :

On **[Date]** I have completed a review of the attached Waterway Security Assessment (WSA) for the **[Project Name]** submitted by **[Name of applicant or entity that prepared the WSA]** on **[Date submitted]**. You are reminded that the attached WSA shall be handled in accordance with the guidelines for Sensitive Security Information (SSI). Based upon this review, and consultations with my Area Maritime Security Committee **[where applicable, identify other Committees or stakeholders that were consulted]** I have determined that the **[Waterway Name]** is suitable for the LNG marine traffic associated with this project because the waterway can accommodate the proposed traffic and there is sufficient capability within the port community to responsibly manage the safety and security risks of this project.

**(OR)**

On **[Date]** I have completed a review of the Waterway Security Assessment (WSA) for the **[Project Name]** submitted by **[Name of applicant or entity that prepared the WSA]** on **[Date submitted]**. You are reminded that the attached WSA shall be handled in accordance with the guidelines for Sensitive Security Information (SSI). Based upon this review, and consultations with my Area Maritime Security Committee **[where applicable, identify other Committees or stakeholders that were consulted]** I have determined that to make the waterway suitable for the LNG marine traffic associated with this project, additional measures will be necessary to responsibly manage the safety and security risks. The specific measures, and, where applicable, the resources needed to implement them, are described in a separate supplementary report which is being provided to you under the terms and conditions established for handling Sensitive Security Information.

Enclosure (9) to NVIC 05-05

For further information, please contact *[Unit POC]* at *[Phone #]*.

Sincerely,

*[Name]*

Captain, U.S. Coast Guard

Captain of the Port *[Applicable Port Name]*

Federal Maritime Security Coordinator

Encl: (1) WSA (SSI material)

Copy: CCGD/#[#] (m)

*[LANT or PAC]AREA( [L or P] m)*

CEU or MLC *[as appropriate]*

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
United States Coast Guard Activities

Relevant  
Address  
Here  
Staff Symbol:  
Phone:  
Fax:

16611

**\*SENSITIVE SECURITY INFORMATION\***  
*(Only when filled in with real info, not this example.)*

Director of Gas – Environmental & Engineering, PJ-11  
Federal Energy Regulatory Commission  
888 First Street, NW  
Washington, DC 20426

Dear Mr./Ms. *[Name]*:

This is to supplement my letter of *(date)* assessing the suitability of the *(name of waterway)* for LNG marine traffic associated with the *(name of proposed project)*. As noted, I determined that additional measures would be necessary to responsibly manage the safety and security risks of this project. In the absence of these measures, the waterway in its current state is not suitable for LNG traffic because *(state general reason, e.g., hydrographic characteristics of waterway will not support vessels of this size; port community does not currently have sufficient capability to effectively implement the security and safety measures deemed necessary to responsibly manage the risks posed by the LNG marine traffic, etc)*. Following is a detailed description of the specific measures that must be undertaken to responsibly manage the safety and security risks of this project:

*(Suggested here are merely possible examples of reasons for unsuitability and how to document them)...*

- LNG vessels navigating between *(e.g., geographic landmarks, mile markers, etc.)* pass within 600m of a high density population area. The appropriate risk management measure during this leg of the voyage is to implement a safety zone around the vessel and enforce the zone with a security escort. Current CG directives that specify that *(specify number)* vessels are needed to adequately enforce the zone. Given that the proposal anticipates *(projected number of LNG vessel calls per week/month, etc)* this would require a minimum of *(specify number of personnel & vessels)*. Currently, there are only *(specify number of personnel & vessels)* available to me, which is insufficient to provide the appropriate coverage. Furthermore, there are no alternative vessels available from any other law enforcement entities because *(e.g., local law enforcement entities do not have vessels or personnel, they do not have jurisdiction to enforce federal safety zone, etc.)*.

- LNG vessels navigating between (*e.g., geographic landmarks, mile markers, etc.*) must pass underneath the **XXX** bridge, which is one of the principal interstate rail and vehicular arteries in the area, as determined by data presented by the **XXX** Railroad Company and the State of **XXX** Department of Transportation. The appropriate risk management measure during this leg of the voyage is to deploy police at the entrance ramps of the bridge to be able to immediately stop vehicular traffic in the event of an incident involving the LNG vessel. Based upon (*number of LNG transits under bridge per week/month*) the (*e.g. Chief of Police, Director of Transit Operations, etc.*) says it would require the deployment of (*number of police*) to have the necessary presence at the ramps, and that these resources are (*e.g., not available; would require increase in annual budget of \$\$\$ to support, etc.*).
- There are already (*number*) major oil refineries and petrochemical complexes between (*e.g., geographic landmarks, mile markers, etc.*) that are serviced by an average of (*number*) large crude oil carriers and chemical parcel tankers (*per week/month, etc.*). Introduction of (*number*) LNG carriers (*per week/month, etc.*) would require the implementation of a new traffic management scheme that would require (*e.g., the restriction of all deep draft traffic while the LNG vessel was transiting that area; daylight transit only, etc.*). Implementation of such a traffic management scheme would severely disrupt the existing facilities' delivery schedules, and require the addition of (*number*) CG operation center watch standers and (*number*) river and harbor pilot support personnel to coordinate LNG vessel scheduling and vessel traffic monitoring.
- The (*e.g., Fire Chief, City Director of Emergency Services, etc.*) recommended that when the LNG vessel is navigating between (*e.g., geographic landmarks, mile markers, etc.*) and while it is berthed at the facility, it be accompanied by at least one fireboat capable of discharging (*gpm*) to mitigate the effects of the thermal radiation on the surrounding community in the event of an incident. The port community does not presently have such a resource.
- LNG vessels navigating between (*e.g., geographic landmarks, mile markers, etc.*) pass in the vicinity of (*number*) recreational boat marinas that could be used as staging areas to mask a Cole-style attack. The appropriate risk management strategy during this leg of the voyage would be to monitor the activity at the marinas and restrict access in or out for 20 minutes before and after the LNG carrier passes by. Consultation with the (*e.g., Marine Police, State Dept of Boating Safety officials, other state or municipal entities*) indicates that it would take (*number of personnel*) to monitor this given an expected (*number of LNG transits per week/month*). They do not have the (*e.g., personnel available, necessary funding, etc.*) to perform this activity.
- The proposed site of the facility would require the LNG vessels to navigate in too close a proximity to a designated anchorage area that typically has (*number of*) deep draft vessels there on a daily basis. There is no suitable alternative anchorage area nearby.

In the absence of these measures, and/or the resources necessary to implement them, this waterway is unsuitable for the LNG marine traffic associated with the (name of proposed project). If at some future date these issues are resolved, I will reconsider my determination of the suitability of this waterway for LNG marine traffic. Should you have any further questions, please contact **(unit POC)** at **(phone #)**.

Sincerely

**[Name]**

Captain, U.S. Coast Guard

Captain of the Port **[Applicable Port Name]**

Federal Maritime Security Coordinator

Copy: CCGDX(m)

XAREA (Xm)

*"WARNING: This record contains Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of this record may be disclosed to persons without a "need to know", as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. Unauthorized release may result in civil penalty or other action. For U.S. government agencies, public disclosure is governed by 5 U.S.C. 552 and 49 CFR parts 15 and 1520."*

## **Summary of “Zones of Concern” for Intentional LNG Spills**

The Sandia Labs Report identifies three concentric Zones of Concern around a LNG tanker, which are summarized below for the case of an intentional LNG spill, and are particularly useful for conducting a risk assessment of a waterway for LNG marine traffic.

- Zone 1: This is the area with the most severe consequences around the LNG tanker, where an LNG spill could pose a severe public safety and property hazard and could damage or significantly disrupt critical infrastructure and key assets located within this area. Zone 1 is considered to extend about 500 m (0.3 miles) for an intentional breach of an LNG tanker. Risk management strategies should address vapor cloud dispersion and fire hazards. The most rigorous deterrent measures should be considered when major critical infrastructure elements, such as population or commercial centers, lie within Zone 1. These measures should include such things as vessel security zones, waterway traffic management, and establishment of positive control over vessels. Coordination among all port security stakeholders is essential. Incident management and emergency response measures should be carefully evaluated to ensure adequate resources (i.e., firefighting, salvage) are available for consequence and risk mitigation.
- Zone 2: This is an area with less severe consequences than Zone 1 and is considered to extend from 500 m (0.3 miles) to 1,600 m (1 mile) for an intentional breach of an LNG tanker. Risk management strategies should address vapor cloud dispersion and fire hazards. When major critical infrastructure elements occur within Zone 2, risk management strategies that should be considered include incident management and emergency response measures that ensure areas of refuge (enclosed areas, buildings) are available, the development of community warning procedures, and education programs to ensure that communities are aware of precautionary measures.
- Zone 3: This is an area with the least likelihood of severe consequences and is considered to extend from 1,600 m (1 mile) to a conservative maximum of 3,500 m (2.2 miles) from the LNG tanker, in the unlikely event that 3 cargo tanks were breached and a vapor cloud disperses without an initial ignition. Risk management strategies should address the vapor cloud dispersion hazard. When major critical infrastructure elements occur within Zone 3, risk management strategies that should be considered include incident management and emergency response measures that ensure areas of refuge are available and community education programs should be considered to ensure that people know what to do in the unlikely event of the release of a vapor cloud without initial ignition.